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10/534,313	05/09/2005	Joseph B Kejha	1411P	9799
7590 Zachary T Wobensmith III 7746 101st Court Vero Beach, FL 32967-2871				
EXAMINER				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOSEPH B. KEJHA and W. NOVIS SMITH

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Appeal 2009-004955  
Application 10/534,313  
Technology Center 1700

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Decided: <sup>1</sup>July 10, 2009

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Before CATHERINE Q. TIMM, LINDA M. GAUDETTE, and  
KAREN M. HASTINGS *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision finally rejecting claims 1-6 and 10 (Final Office Action, mailed Dec. 20, 2007), the only claims pending in the application.<sup>2</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

#### STATEMENT OF THE CASE

Claim 1 is illustrative of the subject matter on appeal, and is reproduced from the Claims Appendix to the Appeal Brief ("Br."), filed Jul. 5, 2008:

1. A cathode composition for use in the cathode of lithium-ion cells, which has a lithiated cathode material and a lithium compound additive therein, and said additive reduces or eliminates initial irreversible capacity loss of said cells.

The Examiner relies on the following evidence to establish unpatentability (Examiner's Answer ("Ans."), mailed Aug. 12, 2008, 3):

Barker	6,468,695 B1	Oct. 22, 2002
Barker	WO 01/13443	Feb. 22, 2001
Xue	5,928,812	Jul. 27, 1999
Endo	6,022,641	Feb. 8, 2000
Zhang	2002/0119375 A1	Aug. 29, 2002

Appellants request review of the following grounds of rejection (Br. 5):

1. claims 1-6 and 10 under 35 U.S.C. § 102(b)/(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as unpatentable over the Barker references (hereinafter referred to collectively as "Barker");

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<sup>2</sup> An oral hearing was conducted on July 8, 2009.

2. claims 1-3, 5, 6 and 10 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as unpatentable over Xue;

3. claims 1-3, 5, 6 and 10 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as unpatentable over Endo; and

4. claims 1-3 and 5-6 under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as unpatentable over Zhang.

Appellants assert that “[t]he claims do not stand or fall together.” (Br. 6.) However, Appellants have not met the requirements for presenting separate arguments as to any particular claim other than independent claim 1 (*see* Br. 14). 37 C.F.R. § 41.37(c)(1)(vii) (“A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.”). Accordingly, we decide the appeal as to each ground of rejection on the basis of independent claim 1.

#### ISSUE

Have Appellants shown reversible error in the Examiner’s finding that that the compositions of Barker, Xue, Endo, and Zhang would inherently reduce or eliminate initial irreversible capacity loss of lithium ion cells?

We answer this question in the negative.

#### FINDINGS OF FACT

Appealed claim 1 recites “[a] cathode composition for use in the cathode of lithium-ion cells, which has a lithiated cathode material and a lithium compound additive therein.” According to the Specification, exemplary lithiated metal oxides include  $\text{LiCoO}_2$ ,  $\text{LiNiO}_2$ ,  $\text{LiMn}_2\text{O}_4$ ,  $\text{LiCoNiO}_2$ , and  $\text{LiV}_2\text{O}_5$ . (Spec. 2:20-21.) Suitable lithium compound additives include  $\text{Li}_2\text{CO}_3$  (Spec. 2:17-18) and  $\text{LiBO}_2$  (claim 2).

The Examiner finds that Barker, Xue, Endo, and Zhang disclose compositions containing the same lithiated cathode materials and lithium compound additives as Appellants. (Ans. 3-5.) The Examiner relies, in particular, on: Barker's disclosure of fabricating a cathode electrode using lithium manganese oxide spinel and a lithium carbonate additive (Example II); Xue's disclosure of preparing a cathode cell using  $\text{LiMn}_2\text{O}_4$  and  $\text{Li}_2\text{CO}_3$  (Example 1); Endo's disclosure of preparing a cathode compound using  $\text{LiMn}_2\text{O}_4$  and 10%  $\text{Li}_2\text{CO}_3$  (Example 3); and Zhang's disclosure of preparing a cathode using  $\text{LiCoO}_2$  and  $\text{LiBO}_2$  (Example II).

Appellants do not dispute these findings. (*See* Br. 8-12.)

However, Appellants argue that the prior art compositions would not reduce or eliminate initial irreversible capacity loss of lithium ion cells as recited in appealed claim 1 because none of the cited references "recognize[s] that upon initial charging of a lithium-ion cell . . . a passivation layer is formed on the carbon anode surfaces resulting in an irreversible capacity loss" (Br. 12). (*See generally*, Br. 8-12 (repeating this argument in response to each ground of rejection).)

The Examiner disagrees, maintaining that the lithium compound additive (i.e.,  $\text{Li}_2\text{CO}_3$  or  $\text{LiBO}_2$ ) in the compositions of each of the applied references would inherently function in the manner claimed. (Ans. 3-5.)

#### PRINCIPLES OF LAW

It is well settled that a prior art reference may anticipate when the claim limitations not expressly found in that reference are nonetheless inherent in it. Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates. Inherency is not necessarily coterminous with the knowledge of those of ordinary

skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art.  
*In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002) (citations omitted). *See also, In re Omeprazole Patent Litigation*, 483 F.3d 1364, 1373 (Fed. Cir. 2007) (discussing case law on inherent anticipation); *Schering Corp. v. Geneva Pharmaceuticals*, 339 F.3d 1373, 1377 (Fed. Cir. 2000) (rejecting the contention that inherent anticipation requires that a person of ordinary skill in the art at the time would have recognized the inherent disclosure).

Where . . . the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. § 102, on 'prima facie obviousness' under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products.

*In re Best*, 562 F.2d 1252, 1255 (CCPA 1977) (citations omitted). *See also, In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990).

#### ANALYSIS

As noted in the above Findings of Fact, Appellants do not dispute that the compositions of Barker, Xue, Endo, and Zhang are identical to the composition of appealed claim 1. Therefore, the burden is on Appellants to establish that the prior art compositions would not inherently reduce or eliminate initial irreversible capacity loss when used in the cathode of lithium-ion cells. Appellants have not provided the evidence necessary to

meet this burden. *Cf. In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997) (argument by counsel cannot take the place of evidence).

Appellants contend that the Examiner's rejections are improper because the prior art failed to recognize the problem addressed by the present inventors. This argument is simply not relevant in the context of an anticipation rejection. *See e.g., In re Cruciferous Sprout Litig.*, and *Schering, supra*, p. 5. The Examiner has fully explained why Appellants' remaining arguments lack persuasive merit. (*See Ans. 6-9.*)

### CONCLUSION

Appellants have not identified reversible error in the Examiner's findings that claims 1-6 and 10 are anticipated by Barker; claims 1-3, 5, 6 and 10 are anticipated by Xue and Endo; and claims 1-3, 5, and 6 are anticipated by Zhang. For the same reasons explained above, Appellants have not identified reversible error in the Examiner's alternative rejections under 35 U.S.C. § 103(a).

The decision of the Examiner rejecting claims 1-6 and 10 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

### AFFIRMED

tc

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